Risø DTU

Radiation Research Division

Change Note

Subject: Changes in Sequence Editor, Control Program and Viewer V.4 compared to V.3

25/5-2011/TLAP

Sequence Editor

The Sequence Editor program has been reorganised considerably in order to make it easy to use for other instrument control purposes. In connection with this reorganisation, we have introduced a number of improvements to the program. The most important of these will be described in this note.

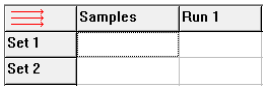
Performance parameters

- The size of the grid that holds the sequence has been expanded from 48×48 to 100×100
- The maximum number of channels has been increased to 9999 (Version 3.24 and earlier of Analyst and Versions before V4.00 of Viewer will not be able to deal with acquisitions of more than 8123 data points)
- The minimum channel width has been decreased to 1 ms

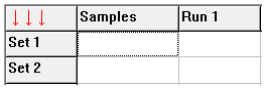
Sequence options

- "Echo On" is no longer available as an option
- "Error trapping" is no longer available as an option as it is always on
- "Sequence file copy" " is no longer available as an option as it is always generated
- "Extended log" is added as an option. Extended log includes all Controller/Minisys communication details. This shall only be used for error tracing as it generates very large log files.
- An icon in the top left cell is shown to indicate the sequence in which the cells are executed

  If "Run 1 at a time" is checked the top cell looks like this



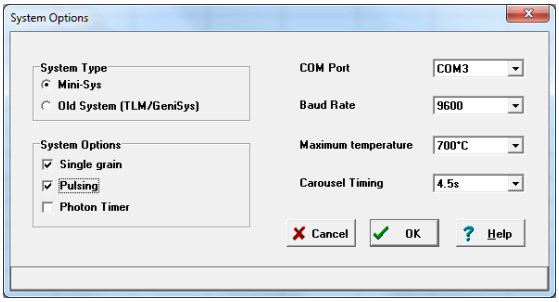
  If "Run 1 at a time" is not checked the top cell looks like this



- "Nitrogen purge time" has been exchanged with "Default nitrogen purge time" which means that nitrogen purge time now may be specified individually for each cell

System options

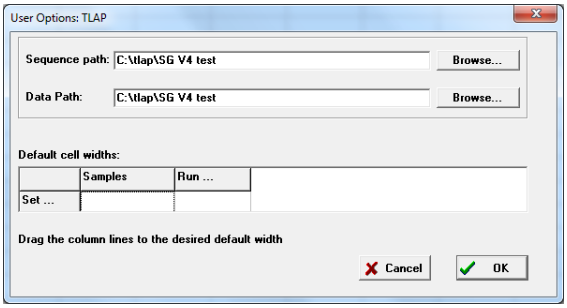
This has been reorganised so all parameters is set in one form



Only the COM ports available on the system are shown

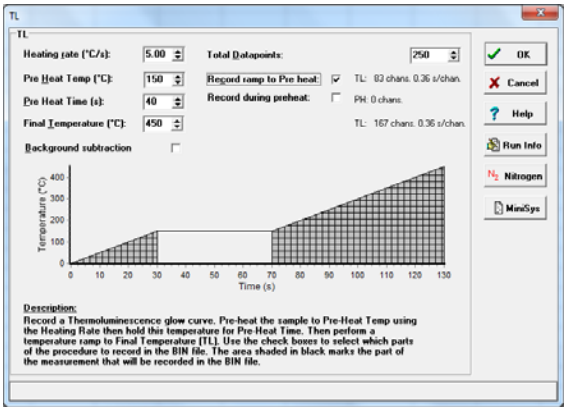
Single Grain System-> System Setup
The encoder parameters have been removed from system setup, as these are now only stored in the Controller. They may be changed from the "Control Program".

User options



System setup parameters such as Minisys type and Reader Options has been moved to "Systems Options"
Cell widths were stored individually in V.3, but as we now have 100 columns this has been given up. Instead a default column width may be stored in user options. You may still adjust the individual cell width during program execution, but the information on the cell with will not be stored as part of the "User Options´"

TL command



The form for defining a TL command has been redesigned in order to make it easier to see what the command actually does and to allow for also recording data during the ramping to preheat temperature. The grey areas under the temperature profile, indicates when data are being recorded.

To make this extension to the TL command it has been necessary to make changes to the format of the sequence files (.SEQ- and .SEC-files). This means that:

IMPORTANT! Sequence files made with the version 4 editor shall not be used with an earlier version of the sequence editor, as preheat information is stored differently and the sequence therefore may not work as expected.

Setup files

Now all user setup information is stored in the file *USERS.INI*, and all information on the single grain system is stored in *SGSETUP.INI*. In V.3 of the software this information was all stored in *TLOSL.INI*

Grid and log window during sequence run

The size of the log window may now be scaled by dragging the border between the grid and the log windows. The current cell is now also shown with a grey colour.

Use of default or stored positions in single grain runs

When starting a run with single grain commands included, you are now asked whether you want to use default positions for all discs or the positions stored from last run. If the turntable that you are measuring has not been reloaded with new samples, it will be faster to use the stored positions, whereas if you have reloaded the turntable it will be better to use the default positions.

Other changes

- You may enter the “Editing Set” dialog by start typing a number when a cell in column 1 is selected (similar to using shortcut <shift>X for directly defining TL, OSL, LM-OSL, S
- The estimated run time is shown in the status bar in the bottom of the window after having pressed the “Run” button

You may also go directly to the definition of a command by selecting the cell you want to define and pressing <shift>X , where X=

- T for TL
- for OSL
- L for LM-OSL
- S for Single Grain OSL
- P for POSL
- I for Irradiation
- H for Pre-Heat

Control Program

The control program has been changed so now only the available COM ports are shown on the "Connection" tab (similar to the in Sequence editor "System options")

The "Reader Settings" tab has been extended with

- Enable beta irradiator check. When enabled the sequence will stop if the beta irradiator does not turn on when ordered to by the sequence editor. This will happen when the gas pressure driving the activation is too low. The reason having the possibility of turning this check off, is that some old readers do not read the irradiator status, and also the Controller software version need to be V.3.20 or higher for this check to work with the Sequence editor
- Maximum X and Y travel, X and Y encoder step distance. This has been removed from the Sequence Editor single grain "System Setup" as it is actually stored in the Controller memory

Viewer

The Viewer now shows run, set and sample no. In the data selection window as *<Command acronym >(run, set, Sample/grain no.)* as shown in the examples below